A 1.0 Mbit SBT Ferro Electric Memory With Trinion Cell Architecture

Iu-Meng Tom Ho, Calvin Lichyun Wen

IOTA Technology Inc
2635 North First Street, Suite 115
San Jose, CA 95134, U.S.A.

Abstract

With the shipments of contactless smartcards using SBT Ferro Electric Capacitors as embedded non-volatile memory surpassing the 100 million mark, a commercially available high density SBT Ferro Electric memory FeRAM is still an illusive target. A new Trinion Cell architecture seems to be able to provide solutions to all the nuances of disturbs and noises from the conventional FeRAM architectures. A 1.0Mb Trinion FeRAM supporting both asynchronous and synchronous timing has been developed. The Trinion cell architecture will be presented and the differences between the Trinion architecture and the conventional architectures will be discussed.